

CLAIMS

1. A hydraulic fluid storage apparatus for a transmission comprising:

- a transmission housing;
- a rotating transmission component supported in said housing;
- 5 a transmission sump secured to said housing to provide a fluid storage chamber;
- a second fluid storage chamber disposed in fluid communication with said sump;
- a pump for circulating hydraulic fluid in said transmission;
- 10 said rotating transmission component being operable to impose a centrifugal component to the fluid in the sump to create a flow restriction to interrupt fluid communication between said sump and said second fluid storage chamber to increase the fluid storage in said second fluid storage chamber and limit the fluid level in said sump to a predetermined maximum
- 15 level.

2. The hydraulic fluid storage apparatus for a transmission defined in Claim 1 further comprising:

said second fluid storage chamber being disposed on said transmission housing at a level higher than said first storage chamber.

3. The hydraulic fluid storage apparatus for a transmission defined in Claim 1 further comprising:

said rotating transmission component being continuously rotated during transmission operation.

4. The hydraulic fluid storage apparatus for a transmission defined in Claim 1 further comprising:

said flow restriction including a hydraulic dam disposed between said first and second fluid storage chambers.

5. The hydraulic fluid storage apparatus for a transmission defined in Claim 1 further comprising:

said flow restriction being reduced and said fluid in said second chamber returning to said first chamber when the speed of said rotating transmission component decreases below a predetermined value.